Application No.: 09/682,040

Office Action Dated: November 29, 2004

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:** 

1. (currently amended) A method for refining a user query, the method comprising:

receiving a query from a user;

mapping the user query to one or more search concepts each having a relative

popularity proportional to a total number of previous queries which have been mapped to the

concept determined by adding a number of popularity points to the search concept for each of

a plurality of different query phrases that matches one of a plurality of key phrases associated

with the search concept, wherein the number of popularity points is proportional to a number

of times the query phrase appears in a query log; and

displaying a list of the search concepts associated with the query.

2. (original) The method of claim 1, further comprising initiating, upon the user's

request, a preferred query associated with at least one of the one or more search concepts to

provide improved search results.

3. (original) The method of claim 1, wherein the one or more search concepts are

popular search concepts and wherein their relative popularity can be used to order the

displayed list.

4. canceled.

5. (currently amended) The method of claim 2, wherein initiating the preferred

search query comprises selecting [[a]] one of the key phrases uniquely associated with the

concept and having a greatest popularity for the concept within the query log as indicated by

the popularity points added to the matching concept as a result of the key phrase matching a

query phrase within the query log.

6. (currently amended) The method of claim [[3]] 1, further comprising

apportioning a number of popularity points among two or more of the search concepts when a

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plurality of different query phrase[[s]] matches one of a plurality of key phrase[[s]] associated with the two or more search concepts, wherein the number of popularity points is proportional to the number of times the query phrase appears in the query log.

7. (currently amended) The method of claim [[4]] 1, further comprising determining a popularity measure of [[the]] each search concept as a function of the popularity points of the search concept and the popularity points of a most popular one of the one or more search concepts.

8. (original) The method of claim 1, wherein the method is performed by execution of instructions stored on a computer-readable medium.

9. (currently amended) A method for refining a user query, the method comprising:

receiving a query from a user;

mapping the user query to one or more search concepts each having a relative popularity proportional to a total number of previous queries which have been mapped to the eoncept determined by adding a number of popularity points to the search concept for each of a plurality of different query phrases that matches one of a plurality of key phrases associated with the search concept, wherein the number of popularity points is proportional to a number of times the query phrase appears in a query log; and,

using the search concepts associated with the query to provide a set of improved search results.

10. (original) The method of claim 9, further comprising automatically initiating a preferred query associated with at least one of the one or more search concepts to provide the set of improved search results.

11. (previously presented) The method of claim 10, wherein the set of improved search results comprises one or more sub-sets of the set of improved search results, each sub-

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set associated with one of the search concepts and having a number of search results

proportional to the relative popularity of the search concept.

12. (original) The method of claim 9, wherein the one or more search concepts are

popular search concepts and wherein their relative popularity can be used to display a list of

the search concepts in order of popularity.

13. canceled.

14. (currently amended) The method of claim 10, wherein automatically

initiating the preferred search query comprises selecting [[a]] one of the key phrases uniquely

associated with the concept and having a greatest popularity for the concept within the query

log as indicated by the popularity points added to the matching concept as a result of the key

phrase matching a query phrase within the query log.

15. (currently amended) The method of claim [[12]] 9, further comprising

apportioning a number of popularity points among two or more of the search concepts when a

plurality of different query phrase[[s]] matches one of a plurality of key phrase[[s]]

associated with the two or more search concepts, wherein the number of popularity points is

proportional to the number of times the query phrase appears in the query log.

16. (currently amended) The method of claim 12, further comprising

determining a popularity measure of [[the]] each search concept as a function of the

popularity points of the search concept and the popularity points of a most popular one of the

one or more search concepts.

17. (original) The method of claim 9, wherein the method is performed by execution

of instructions stored on a computer-readable medium.

18. (withdrawn) A method comprising:

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analyzing a plurality of queries from a plurality of users to identify two or

more search concepts; and,

assigning a popularity value to the two or more search concepts based on the

plurality of queries such that the relative popularity of the respective search concepts can be

determined.

19. (withdrawn)The method of claim 18, wherein assigning the popularity value

comprises adding a number of popularity points to the concept for each of a plurality of

different query phrases that matches one of a plurality of key phrases associated with the

concept and that is unique to the concept, the number of popularity points being proportional

to a number of times the query phrase appears in a query log.

20. (withdrawn) The method of claim 18, wherein assigning the popularity value

comprises apportioning a number of popularity points among two or more of the search

concepts when a plurality of different query phrases match one of a plurality of key phrases

associated with the two or more search concepts, wherein the number of popularity points is

proportional to the number of times the query phrase appears in the query log.

(withdrawn)The method of claim 18, wherein the popularity value for a search 21.

concept is a function of the popularity points of that search concept and the popularity points

of a most popular one of the search concepts.

22. (withdrawn)The method of claim 18, wherein the popularity value is based at

least in part on past queries received from users.

(withdrawn)The method of claim 18, wherein the popularity value is based at 23.

least in part on a prediction of future queries that will be received from users.

(withdrawn)The method of claim 18, wherein the method is performed by 24.

execution of instructions stored on a computer-readable medium.

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25. (withdrawn)A method comprising:

analyzing a plurality of queries from a plurality of users to identify at least one search concept; and,

datarmining a proform

determining a preferred search query for the at least one search concept, wherein the preferred search query is associated with a selected set of search results for the at

least one search concept.

26. (withdrawn)The method of claim 25, wherein determining the preferred search

queries comprises, for each of the at least one search concepts, selecting a key phrase

uniquely associated with the concept and having a greatest popularity for the concept within

the plurality of queries.

27. (withdrawn) The method of claim 25, wherein the method is performed by

execution of instructions stored on a computer-readable medium.

28. (currently amended) A system comprising:

a server communicatively coupled with a client at which a user generates a

query, wherein the server maps the user query to one or more search concepts and returns to

the client for display to the user a list of the search concepts associated with the query each

having a relative popularity proportional to a total number of previous queries which have

been mapped to the concept determined by adding a number of popularity points to the search

concept for each of a plurality of different query phrases that matches one of a plurality of

key phrases associated with the search concept, wherein the number of popularity points is

proportional to a number of times the query phrase appears in a query log.

29. (previously presented) The system of claim 28, wherein the server is a search

engine and the client is a web browser.

30. (previously presented) The system of claim 28, wherein the server and the

client are applications.

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31. (withdrawn) A system comprising:

a database storing a plurality of queries from a plurality of users; and,

a server to analyze the plurality of queries to identify two or more search concepts, and assign a popularity value to the two or more search concepts based on the plurality of queries such that the relative popularity of the respective search concepts can be determined.

- 32. (withdrawn) The system of claim 31, wherein the server is a search engine.
- 33. (withdrawn) The system of claim 31, wherein the server is an application.